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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,919	11/10/2005	Yutaka Inoue	1907-0222PUS1	3787

  

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EXAMINER	
SHALLENBERGER, JULIE A	

  

ART UNIT	PAPER NUMBER
2885	

  

NOTIFICATION DATE	DELIVERY MODE
11/16/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	<b>Application No.</b> 10/531,919	<b>Applicant(s)</b> INOUE ET AL.	
	<b>Examiner</b> Julie A. Shallenberger	<b>Art Unit</b> 2885	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 8-10 and 29-38 is/are pending in the application.
- 4a) Of the above claim(s) 20,21,24 and 32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-10 and 29-31, 33-38 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/19/05, 7/19/05, 8/24/07</u> . | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The amendment filed 8/16/07 has been entered.

Applicant's election without traverse of claims 8-10, 29-31, & 33-38 in the reply filed on 7/17/07 is acknowledged.

### ***Claim Objections***

Claims 8, 9, 10, 29, 30, and 37 are objected to because they recite "at the both ends" and should say --at both ends--.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 9, 10, 29, are 30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim recitation "on the surface to be illuminated of the object to be illuminated" does not make grammatical sense, and it is unclear what the applicant is intending to claim regarding this recitation.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shoenfeld.

Shoenfeld teaches a backlight unit for illuminating an object using a plurality of fluorescent lamp light sources 22 ( figures 3 and 4) disposed below the object to be illuminated (x-ray), wherein the unit has a reflection portion (figure 5) for causing the light from the light sources to exit toward a certain direction, wherein the reflection portion comprises first and second reflection layers (23 and 27) with predetermined levels of reflectance and transmittance wherein the reflection portion consists of a first region with first and second reflection layers (whole bottom 23 and 27) located at a position equivalent to the central portion on the surface to be illuminated and a second region containing the first reflection area only (23 alone – minus area 27), wherein a brightness gradient is formed in the horizontal and vertical directions on the surface to be illuminated and wherein the reflectance is controlled using the first region with relatively higher reflectance than the second region, but does not explicitly teach that the first and second layers are overlapped in the first region.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make layer 27 overlap layer 23 (via adhesive or the like) in order

to simplify the manufacturing process or to make the layer removable if so desired for various lighting applications.

Claims 9, 10, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoenfeld in view of Shaw (6,494,587).

Shoenfeld teaches the invention described above, including first and second layers located in the central portion of the horizontal (cl. 9) and vertical (cl. 10) direction, but lacks the teaching of making the brightness of the light sources located at the central portion in the vertical direction on the surface to be illuminated relatively higher than the brightness of the light sources located at both ends.

Shaw teaches a backlight with fluorescent light sources which is capable of adjusting the brightness of the light sources located at the center so that the central portion is illuminated relatively higher than both ends.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Shaw's teaches of controlling the luminance output of lamps in a backlight in order to make the central region brighter to better illuminate objects that are positioned in the center (ie x-rays).

In regard to claims 33 and 34, Shaw teaches using a backlight with a liquid crystal display (col. 1 line 14).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the backlight of Shoenfeld in a liquid crystal display in order to increase the marketability of the backlight device.

Claims 29, 30, 31, 35-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shoenfeld in view of Ogiwara (2003/0210222).

Shoenfeld teaches the invention described above as well as the backlight unit controlling reflectance of the reflection portion in a direction parallel with the longitudinal direction of the lamps (cl. 37) wherein the lamps are parallel to the horizontal direction of the object to be illuminated (cl. 38), but lacks the teaching of making the clearance of light sources located at the center (in horiz./vert. directions) on the surface to be illuminated relatively smaller than the clearance of the light sources located at both ends.

Ogiwara teaches making the clearance of light sources located at the center (in horiz./vert. directions – cl. 29 and 30) on the surface to be illuminated relatively smaller (see figure 7) than the clearance of the light sources located at both ends [0281]-[0285].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the clearance between the light sources smaller at the central area as taught by Ogiwara in order to increase the luminance (brightness) in the central portion so objects are better illuminated in the main area of the device.

In regard to claims 31, 35, and 36, Ogiwara teaches using a backlight in a liquid crystal display [0019].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the backlight of Shoenfeld in a liquid crystal display in order to increase the marketability of the backlight device.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Modia (4,335,421) teaches a relevant lighting device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie A. Shallenberger whose telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong-Suk (James) Lee can be reached on 571-272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:  
10/531,919  
Art Unit: 2885

Page 7

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAS  
AU 2885



JONG-SUK (JAMES) LEE  
SUPERVISORY PATENT EXAMINER